What is claimed is:

1. A digital camera comprising:

a diaphragm, which controls an amount of incident light by varying a stop-amount;

a solid-state imaging element, which receives the incident light passed through the diaphragm, and the solid-state imaging element has a plurality of pixels, and each of the pixels is divided into a main pixel, which has a first area and read a high-sensitivity image signal, and

a sub-pixel, which has a second area which is smaller than the first area, and read a low-sensitivity image signal; and

a controller, which individually controls a gain amount of the high-sensitivity image signal and a gain amount of the low-sensitivity image signal in response to the stop-amount of the diaphragm,

a synthesizing processor, which synthesizes the controlled high-sensitivity image signal and the controlled low-sensitivity image signal.

2. The digital camera according to claim 1,

wherein the controller increases the gain amount of the high-sensitive image signal and decreases the gain amount of the low-sensitive image signal when the diaphragm is set to an open side, whereas the controller decreases the gain amount of the high-sensitive image signal and increases the

gain amount of the low-sensitive image signal when the diaphragm is set to a small-stop side.

3. The digital camera according to Claim 1,

wherein when the controller increases the gain amount of the low-sensitive image signal, the controller decreases a synthesizing ratio of the low-sensitive image signal synthesized with the high-sensitive image signal.

4. The digital camera according to claim 1, wherein the plurality of pixels is arranged in an array shape.

5. The digital camera according to claim 1, each of the pixels is divided into the main pixel and the sub-pixel by an element separating band deviated from a center of the pixel.

6. A digital camera comprising:

a diaphragm, which controls an amount of incident light by an stop-amount;

a solid-state imaging element, which receives the incident light passed through the diaphragm, and the solid-state imaging element has a plurality of pixels, and each of the pixels is divided into

a main pixel, which has a first area and read a high-sensitivity image signal, and

a sub-pixel, which has a second area which is smaller

than the first area, and read a low-sensitivity image signal; and

a controller, which operates in such a manner the smaller a stop amount of the diaphragm becomes, the smaller a synthesizing ratio of the low-sensitive image signal with respect to the high-sensitive image signal is decreased, and

synthesizing processor, which synthesizes the high-sensitivity image signal with the low-sensitivity image signal.

7. The digital camera according to claim 6, wherein the plurality of pixels is arranged in an array shape.

8. The digital camera according to claim 6, each of the pixels is divided into the main pixel and the sub-pixel by an element separating band deviated from a center of the pixel.